



Sleeping Bear Dunes National Lakeshore

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Sleeping Bear Dunes, National Lakes...



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Junior Ranger Workbook



HELLO JUNIOR RANGER CANDIDATE!

Welcome to Sleeping Bear Dunes National Lakeshore!

Would you like to become a **Junior Ranger**? Here's all you do:

- (1) Complete at least one challenge from each section of this workbook,
or
- (1) Complete at least one challenge from eight of the nine sections and take the Junior Ranger hike.
- (2) When you've done one of the above, take this workbook to the Visitor Center and show it to a ranger.

You will receive a Junior Ranger Patch, a Junior Ranger Certificate, and the honor of becoming a Junior Ranger!

NOTE: If you complete at least two challenges from each section of this workbook, you will also earn an Assistant Junior Ranger Certificate for a member of your family.

And now, Junior Ranger candidate, repeat the following lines before a witness; they are your Junior Ranger oath:

I WILL

- RESPECT ALL LIVING THINGS AND TRY TO LIVE PEACEFULLY WITH THEM
- TAKE ACTION TO IMPROVE MY ENVIRONMENT, WHEREVER I AM
- PRESERVE THE SENSE OF WONDER THAT I HAVE AS A YOUNG PERSON,
CHERISH AND NURTURE IT THROUGHOUT MY LIFE

Signature of Witness: _____

We at Sleeping Bear Dunes National Lakeshore wish you courage, good luck, and a lot of fun in your quest for Junior Ranger status.

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INFORMATION AND SUGGESTIONS

SECTION ONE - OUR NATIONAL PARK SYSTEM



Challenge One: Name three other National Parks and the state in which each is located.

National Park

State

1. _____

2. _____

3. _____

Challenge Two: Write down the names of two National Parks other than Sleeping Bear Dunes found in Michigan. (Look at a Michigan map. They are both north of Sleeping Bear Dunes National Lakeshore.)

1. _____ 2. _____

Challenge Three: Write about a park you have visited which was not a National Park. Please include: Name of park, the nicest thing that you saw, favorite thing that you did, what time of year it was, and how that park was different from Sleeping Bear Dunes National Lakeshore.

Challenge Four: Go to one of the ranger-led activities . Have the ranger initial here. _____

What is the name of the walk or slide show? _____

Write down one thing that you learned. _____

NOTE: One challenge per section is required for a patch.

SECTION TWO - SLEEPING BEAR DUNES NATIONAL LAKESHORE

Challenge One: Go to the DUNE CLIMB. Find the post that measures the movement of the sand dune.(It's at the bottom of the dune, on the north side.) Read the sign that's there. Then figure out how many feet per year the sand has moved since the year that the post was installed. Write your answer here. _____

Challenge Two: Go to the SCENIC DRIVE and stop at the Lake Michigan Overlook. What major landmarks can you see from there?

1) _____

2) _____

3) _____

Challenge Three: Go to the MARITIME MUSEUM. Find the items listed below in the boathouse, the surfmen's quarters, or on the grounds. Tell us exactly where you found them.

AN OLD outhouse _____

A BEEBE-McLELLAN _____

A STEAMBOAT PILOT HOUSE _____

A LYLE GUN _____

A PICTURE OF AN ADMIRAL _____

A PICTURE OF A WOMAN RIDING A BREECHES BUOY _____

AN OLD LIGHTHOUSE LENS _____

TACONITE _____

Also, name one ship that wrecked along the Manitou Passage. _____

Challenge Four: Write down the **LEGEND OF THE SLEEPING BEAR** in your own words:

Challenge Five: Attend a ranger-led activity which you have not already attended.

Have the ranger initial here _____

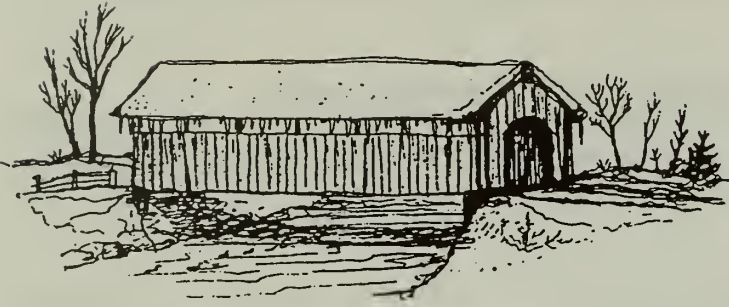
What is the name of the walk or slide show? _____

Write down one new thing you learned. _____



Remember, only one challenge per section is required for a Junior Ranger patch.

SECTION THREE - OUR NATURAL AND CULTURAL HISTORY



Challenge One: What is natural history? _____

Tell about some natural history that you learned while in the park. _____

Challenge Two: What is cultural history? _____

Tell about some cultural history that you learned in the park. _____

Challenge Three: Attend a slide show or a movie at the Visitor Center. What show did you see?

What was your favorite part? _____

Challenge Four: Draw a picture of an animal that you saw in the park.

Challenge Five: Attend a ranger-led activity which you have not attended.

Have the ranger initial here. _____

What is the name of the walk or the slide show? _____

Write down one new thing that you learned. _____

One challenge per section is required for a Junior Ranger patch.

SECTION FOUR - PROTECTING OUR RESOURCES

We protect our resources by getting to know them well and then using them in a way which will save them for others to enjoy.



Challenge One: List five kinds of wildlife that you have seen in the park. Next to each note 1. the date and time of day you saw it, 2. the weather conditions, 3. where you saw it, 4. what it was doing, and 5. its habitat.

1. _____

2. _____

3. _____

4. _____

5. _____

Challenge Two: A *sand dune* is often called a fragile environment. Why?

Challenge Three: Name three plant communities that live in this park. (Check the display in the Visitor Center for the answer.)

- 1. _____
- 2. _____
- 3. _____

Challenge Four: Name four kinds of rocks found in this park. (Check the display in the Visitor Center for the answer.)

- 1. _____ 2. _____
- 3. _____ 4. _____

Challenge Five: Attend a ranger-led activity which you have not already attended.

Have the ranger intial here _____

What is the name of the walk or the slide show? _____

Write down one new thing you learned. _____



SECTION FIVE - OUR EFFECT ON THE ENVIRONMENT

The National Parks are for visitors to enjoy. Yet, we must also protect our resources. Visitors are welcome to the park, but remember that it is possible to love your park to death! There are many ways we can lessen our impact on the environment here.



Challenge One: Listed below are some things that people have done at Sleeping Bear Dunes National Lakeshore. Are these things that we should do (yes) or should not do (no)?

1. Take a portable stereo into the campground or on the trails and play it loudly. yes no
2. Pick up any trash you find and put it into the nearest trash can. yes no
3. If an animal walks into your camp, wage battle with it. yes no
4. Pick beautiful or interesting plants so that you can take them home. yes no
5. Be very quiet on the trails so that you don't disturb wildlife. yes no
6. When you hike, take a map of the area, some water, layers of clothing, comfortable shoes, a hat, and sunglasses. yes no
7. Use a camera to take home picture souvenirs of the park. yes no
8. Always wear Vibram-soled boots with a "waffle" pattern or cleated softball shoes to get enough traction. yes no
9. If an animal is in your campsite, invite it for dinner. yes no
10. If the trail seems wide enough for a truck, take your vehicle on it. yes no

NOTE: See page 22 for explanations

Challenge Two: Explain why it is important to preserve our National Parks for future generations.

Challenge Three: Name one plant and one bird in Sleeping Bear Dunes National Lakeshore that is easily affected by human activity. How is it affected?

(Plant) _____

(Bird) _____

Challenge Four: Attend a ranger-led activity which you have not already attended.

Have the ranger initial here. _____

What is the name of the walk or slide show? _____

Write down one new thing that you learned. _____

NOTE: One challenge per section is required for a Junior Ranger patch.

SECTION SIX - VISITOR PROTECTION

Have a safe and pleasant visit at Sleeping Bear Dunes National Lakeshore.



Challenge One: For everyone's protection and benefit, there are certain rules we all must follow while using this park. Write down four of them.

1. _____
2. _____
3. _____
4. _____

Challenge Two: Have you seen anything in the park that seems like a hazard to your safety? Please tell us about it here.

Challenge Three: Have you seen something in the park that has been vandalized? Please tell us about it here.
Try to describe the location well.

Challenge Four: Write down one good thing that could be done to make this park even more pleasant and safe
for you.



SECTION SEVEN - ENDANGERED SPECIES

An **ENDANGERED** species is a species that is in danger of becoming extinct (disappearing from the earth forever). A **THREATENED** species is one which may become endangered soon. A **RARE** species is one which is uncommon.

Endangered, threatened, and rare species are protected. Even if you are outside of Sleeping Bear Dunes National Lakeshore (where everything is protected), you may not pick, kill, or alter the habitat of these species.

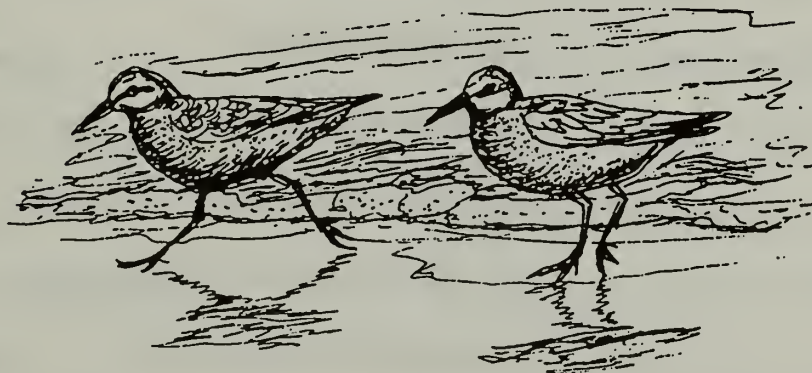
There are many good reasons to save these species. One is that we can look at how they are doing and possibly be forewarned about how well we will survive.



Challenge One: Name one **ENDANGERED**, **THREATENED**, or **RARE** plant found at Sleeping Bear Dunes National Lakeshore, and tell where it lives.

Challenge Two: Name one animal that you think might have lived at Sleeping Bear Dunes but is now extinct.

Challenge Three: Write a poem about what you think it would feel like to be an endangered creature.



Challenge Four : Attend a ranger-led activity which you have not already attended.

Have the ranger initial here. _____

What is the name of the talk or the slide show? _____

Write down one new thing that you learned. _____

SECTION EIGHT - NATURE SPY

It's fun to "spy" on nature, to see how animals act when they don't know that you are there. It takes practice and skill to observe wildlife without letting it know you are watching!

Challenge One: These mammals are found at Sleeping Bear Dunes National Lakeshore. Match the animal with its description. The first one is done for you.

- | | |
|------------------------------------|--|
| 1. White-tailed Deer <u>Q</u> | A. Largest squirrel in Michigan |
| 2. Badger _____ | B. Bandit mask, soft pads on paws |
| 3. Little Brown Bat _____ | C. Small squirrel that lives in pines |
| 4. Star-nosed Mole _____ | D. Some call it a gopher |
| 5. Red Fox _____ | E. Sleek, playful, aquatic predator |
| 6. Woodchuck _____ | F. Nocturnal winged mammal |
| 7. Flying Squirrel _____ | G. White-tipped tail, lives in den |
| 8. Red Squirrel _____ | H. Stinky, might visit your camp |
| 9. Fox Squirrel _____ | I. Feels with nose while underground |
| 10. 13-lined Ground Squirrel _____ | J. A digging predator |
| 11. Chipmunk _____ | K. Prickly, bark-eating |
| 12. Raccoon _____ | L. Big, brown, black, or grey squirrel |
| 13. Porcupine _____ | M. Like fox squirrel with white front |
| 14. River Otter _____ | N. Predator in the weasel family |
| 15. Beaver _____ | O. Big eyes, nocturnal, in trees |
| 16. Skunk _____ | P. Water rat is another name |
| 17. Shrew _____ | Q. Flashes enemies to confuse them |
| 18. Grey Squirrel _____ | R. Cute, voracious, on S. Manitou |
| 19. Mink _____ | S. Water herbivore, builds dams |
| 20. Muskrat _____ | T. Small, nocturnal, predator |

NOTE: Answers are found on page 22.



Challenge Two: These birds are found at Sleeping Bear National Lakeshore. Match each with its description.

Pileated Woodpecker _____

Northern Harrier _____

American Redstart _____

Red-headed Woodpecker _____

Ruffed Grouse _____

Black-capped Chickadee _____

Great Blue Heron _____

Hooded Merganser _____

Great Horned Owl _____

Loon _____

Barred Owl _____

Yellow-billed Cuckoo _____

Ovenbird _____

Ruby-throated Hummingbird _____

Eastern Bluebird _____

Upland Sandpiper _____

Red-breasted Grosbeak _____

Indigo Bunting _____

Turkey Vulture _____

Sharp-shinned Hawk _____

A. Became rare when wooden fenceposts did.

B. Big, long-legged, fish-eating

C. Eats tent caterpillars

D. A little, common, flashy warbler

E. Nocturnal predator, asks "Who cooks for you?"

F. Pecks at trees noisily

G. Raids bird feeders, not for seed

H. Drums with wings, sitting on logs

I. Diving duck with fancy headdress

J. Male's front is black, red, white

K. Bright blue male, brown female

L. Used to be called a Plover

M. Wears a tuxedo and red ski mask

N. Used to be called Marsh Hawk

O. Bold; name sounds like its call

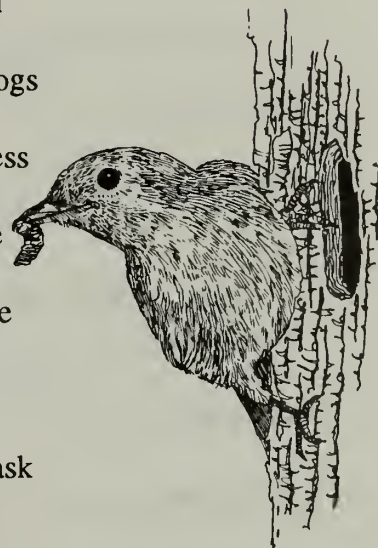
P. Brown, nocturnal, predator with yellow eyes

Q. Waterfowl, haunting cry, dislikes noise

R. Says, "Teacher, Teacher, Teacher"

S. Flies very fast

T. Big, black scavenger; soars when flying



Challenge Three: These plants, trees, and shrubs grow at Sleeping Bear Dunes National Lakeshore. Match each with its description.

1. Wormwood _____

2. Beachgrass _____

3. American Beech _____

4. Wood Lily _____

5. Red-osier Dogwood _____

6. Dutchman's Breeches _____

7. Yellow Trout Lily _____

8. Cottonwood _____

9. Pink Ladies Slipper _____

10. Trillium _____

11. Wood Nettle _____

12. Sugar Maple _____

13. Wild Leek _____

14. Bracken Fern _____

15. Bloodroot _____

16. White Pine _____

17. White Oak _____

18. Sweet cicely _____

19. Jack-in-the-pulpit _____

20. Pitcher's Thistle _____

A. Makes cow's milk taste like onions

B. Early spring flower, red sap in roots

C. Michigan state tree

D. Flaky grey bark, tasty acorn

E. Produces stick-tights

F. Looks like a minister in a pulpit

G. Found only on Great Lakes sand dunes

H. Common fern in dry forests

I. Protected, orange, found on dunes

J. Leaf is mottled like fish skin

K. On dunes, biannual, named after something you take fishing

L. Smooth silvery bark, in climax forest

M. Keeps growing when buried

N. Small, hairy, burgundy, grows on dunes

O. Protected orchid of north woods

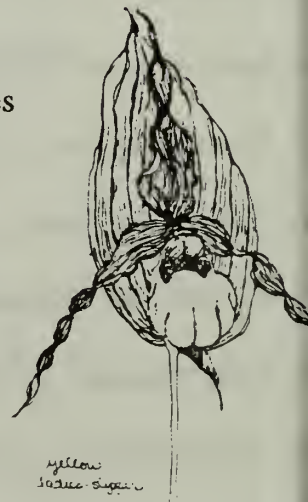
P. Tiny needles contain formic acid

Q. Looks like pants hung out to dry

R. First tree to grow on sand dunes

S. Makes good syrup for pancakes

T. Takes at least six years to make a flower



Challenge Four: These little creatures are found at Sleeping Bear Dunes National Lakeshore. Match each with its description.

Ringnecked Snake _____

A. Little snake, side row of brown dots

Grey Tree Frog _____

B. This guy lives in the pits

Tent Caterpillar _____

C. Sounds like a one-stringed banjo

Wood Frog _____

D. Predatory larva, live in a case in a stream

Black Widow Spider _____

E. Believed to foretell hard winters

Brown Recluse Spider _____

F. Hairy spider, doesn't spin web

Chorus Frog _____

G. Runs on hot sand with long legs

Woolly Bear Caterpillar _____

H. Spider, shiny, black, female is poisonous

Wolf Spider _____

I. Hairy morsels for Cuckoo birds

10. Tiger Beetle _____

J. Male flashes yellow inner-thigh to female

11. DeKay's Snake _____

K. Sounds like finger running down teeth of comb

12. Ant Lion _____

L. Amphibian, bandit mask, suckers on toes

13. Green Frog _____

M. A duck has the same first name

14. Caddisfly _____

N. Has spots, found under logs

15. Spotted Salamander _____

O. Has shell and striped neck

16. Blue Racer _____

P. Big fast snake

17. Painted Turtle _____

Q. Michigan's only poisonous snake

18. Massasauga _____

R. Biggest turtle here

19. Snapping Turtle _____

S. Forked tongue, swims in water, bites, but not poisonous

20. Water Snake _____

T. Poisonous brown spider, marks like violin on back



SECTION NINE - WILDERNESS CAMPING

Some areas at Sleeping Bear Dunes National Lakeshore are designated as WILDERNESS. Camping properly there takes special effort and skill. At all campgrounds, try to leave camp as you found it so the next visitor will enjoy it too.



Here is a camping checklist.

1. Pack out everything that you pack in.
2. Make a fire only in fire pits.
3. If no fires are allowed, bring a backpacking stove.
4. Do not wash in a water pump.
5. If you wash in the wilderness, carry water 300 feet from source. Thick soil helps break down waste.
6. Use the outhouse. If there is none, dig a six-inch hole and cover it. Do this away from any water source.
7. Campsites should be about 300 feet away from a water source.
8. Don't eat food in your tent; this attracts animals. Even cute little chipmunks can chew through your tent and eat your food.
9. If there is no water pump, boil, filter, or chemically treat your water.
10. Make a fire only as big as you need. Be sure it is cool before you leave.
11. Don't leave unburned trash in fire pit. Don't burn plastic, cans, or tinfoil in the pit.

Challenge One: Name the three campgrounds on South Manitou Island.

1. _____ 2. _____ 3. _____

Challenge Two: List six rules for camping on North Manitou Island.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Challenge Three: List five characteristics of a good camper.

1. _____ 2. _____
3. _____ 4. _____
5. _____

Challenge Four: Attend a ranger-led activity which you have not already attended.

Have the ranger initial here. _____

What is the name of the walk or the slide show? _____

Write down one new thing you learned. _____

EXPLANATIONS FOR SECTION FIVE, CHALLENGE ONE

1. Loud music is inappropriate because it disturbs wildlife and campers.
2. Yes, please help us keep the park clean.
3. The best way to keep out invaders is to keep a clean campsite. Put food in solid containers such as coolers.
4. All plants in the park are protected. Things might start looking a little barren if everyone picked plants!
5. Loud noises often mean danger to animals, and causes them stress. Don't make their life any more stressful than it is. Also, people come to the park to enjoy peace and quiet.
6. This prevents you from getting lost, and allows you to enjoy the trails more comfortably.
7. A picture is worth a thousand words!
8. Treads won't do you much good. Make sure that your footwear is light and comfortable.
9. If a camper feeds an animal, that animal may become dependant on hand-outs and even teach this behavior to its young.
10. Vehicles erode the hiking trails and are prohibited.

ANSWERS TO SECTION EIGHT - NATURE SPY

Challenge One - 1=Q, 2=J, 3=F, 4=I, 5=G, 6=A, 7=O, 8=C, 9=L, 10=D, 11=R, 12=B, 13=K, 14=E, 15=S, 16=H, 17=T, 18=M, 19=N, 20=P

Challenge Two - 1=F, 2=N, 3=D, 4=M, 5=H, 6=O, 7=B, 8=I, 9=P, 10=Q, 11=E, 12=C, 13=R, 14=S, 15=A, 16=L, 17=J, 18=K, 19=T, 20=G

Challenge Three - 1=K, 2=M, 3=L, 4=I, 5=N, 6=Q, 7=J, 8=R, 9=O, 10=T, 11=P, 12=S, 13=A, 14=H, 15=B, 16=C, 17=D, 18=E, 19=F, 20=G

Challenge Four - 1=M, 2=J, 3=I, 4=L, 5=H, 6=T, 7=K, 8=E, 9=F, 10=G, 11=A, 12=B, 13=C, 14=D, 15=N, 16=P, 17=O, 18=Q, 19=R, 20=S

INFORMATION AND SUGGESTIONS

Please fill this out for our information. Thank you!

NAME: _____

ADDRESS _____

PHONE: _____ AGE: _____

1. Rate this workbook from 1 - 10. (1=easy, 10=difficult) _____

2. Which activity was your favorite? _____

3. What did you learn that surprised you most? _____

4. How many people helped you? _____

5. Who helped, parents? other family members? friends? _____

6. Did you attend a Junior Ranger Hike? _____ You may substitute the hike for one challenge.

Please draw a picture of your favorite thing at Sleeping Bear Dunes National Lakeshore.

THANK YOU FOR PARTICIPATING IN THE JUNIOR RANGER PROGRAM!

